

IN THE CLAIMS:

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Cancel claims 1-34, without prejudice.

Add the following new claims 35-76:

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35. (New) A method for producing a calendered product, comprising the steps of:

- (a) forming a base web from a mixture of water and pulp supplied from a headbox and drying the base web by pressing and heating;
- (b) standardizing a cross-directional-thickness of the base web across a width of the base web to form a standardized web; and
- (c) calendering the standardized web at least once using a long-nip calender for modifying at least one side of the standardized web.

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36. (New) The method of claim 35, wherein said step (b) of standardizing comprises selectively diluting the mixture of water and pulp supplied from the headbox in sections across the width of the base web.

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37. (New) The method of claim 35, wherein said step (b) of standardizing comprises selectively steaming sections across the width of the base web during pressing.

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38. (New) The method of claim 35, wherein said step (b) of standardizing comprises selectively pressing sections of the base web across the width of the base web.

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39. (New) The method of claim 35, wherein said step (b) of standardizing comprises selectively heating sections of the base web across the width of the base web.

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40. (New) The method of claim 35, wherein said step (b) of standardizing comprises selectively cooling sections of the base web across the width of the base web.

62 41. (New) The method of claim 35, wherein said step (b) of standardizing comprises wetting sections of the base web across the width of the base web.

63 42. (New) The method of claim 41, wherein said step (b) of standardizing comprises selectively wetting sections of the base web with one of a film transfer coater and a spray coater across the width of the base web.

64 43. (New) The method of claim 35, wherein said step (b) of standardizing comprises treating the base web with a machine calender prior to said step (c).

65 44. (New) The method of claim 43, wherein said step of treating the base web with a machine calender comprises treating the base web with a zone-adjusted machine calender.

66 45. (New) The method of claim 44, wherein said step (c) of calendering the standardized web comprises coating the standardized web with at least one coating layer and calendering the coated web with the long-nip calender.

67 46. (New) The method of claim 45, wherein said step of calendering further comprises using a precalender having a nip length of less than 50 mm, a nip pressure that does not exceed 50 MPa, and a thermoroll temperature of 80 to 300°C, and wherein the long-nip calender has a nip length of 30 to 280 mm, a nip pressure of 1 to 12 MPa, a thermoroll temperature of 100 to 300°C, and a calender belt hardness of 80 to 100 ShA.

68 47. (New) The method of claim 43, wherein said step (c) of calendering the standardized web comprises coating the standardized web with at least one coating layer and calendering the coated web with the long-nip calender.

69 48. (New) The method of claim 47, wherein said step of calendering further comprises using a precalender having a nip length of less than 50 mm, a nip pressure that does

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not exceed 50 MPa, and a thermoroll temperature of 80 to 300°C, and wherein the long-nip calender has a nip length of 30 to 280 mm, a nip pressure of 1 to 12 MPa, a thermoroll temperature of 100 to 300°C, and a calender belt hardness of 80 to 100 ShA.

10 49. (New) The method of claim 35, wherein said step (c) of calendering the standardized web comprises coating the standardized web with at least one coating layer and calendering the coated web with the long-nip calender.

71 50. (New) The method of claim 49, wherein said step of calendering further comprises using a precalender having a nip length of less than 50 mm, a nip pressure that does not exceed 50 MPa, and a thermoroll temperature of 80 to 300°C, and wherein the long-nip calender has a nip length of 30 to 280 mm, a nip pressure of 1 to 12 MPa, a thermoroll temperature of 100 to 300°C, and a calender belt hardness of 80 to 100 ShA.


72 51. (New) The method of claim 35, further comprising the step of measuring a thickness profile of the base web at at least one point of the length of the base web prior to said step (c) of calendering.

73 52. (New) The method of claim 51, wherein the thickness profile of the base web is measured with at least one actuator positioned upstream of the long-nip calender.

74 53. (New) The method of claim 35, wherein said steps are performed continuously on-line in a paper or board machine.

75 54. (New) The method of claim 35, further comprising the step of winding the standardized web onto a storage roll prior to said step (c) of calendering.

76 55. (New) The method of claim 35, wherein said step (b) of standardizing comprises at least two of: (i) selectively diluting the mixture of water and pulp supplied from the



headbox in sections across a width of the base web, (ii) selectively steaming sections across the width of the base web, (iii) selectively pressing sections of the base web across the width of the base web, (iv) selectively drying sections of the base web across the width of the base web, (v) selectively cooling sections of the base web across the width of the base web, (vi) selectively wetting sections of the base web across the width of the base web, (vii) treating the base web with a machine calender, and (viii) treating the base web with a zone-adjusted machine calender for selectively applying pressure to sections across the width of the base web.

56. (New) An apparatus for manufacturing a calendered paper or board comprising:

a headbox effective for forming a base web from a mixture of water and pulp fed from said headbox;

pressing means for removing water from the base web by pressing the base web;

drying means for drying the base web by heating the base web;

means for standardizing a cross-direction thickness of the base web across a width of the base web to form a standardized web; and

at least one calender comprising a long-nip calender for modifying at least one side of the standardized web.

57. (New) The apparatus of claim 56, wherein said headbox comprises a dilution adjusted headbox.

58. (New) The apparatus of claim 56, wherein said pressing means further comprises means for selectively steaming sections of the base web across the width of the base web.

59. (New) The apparatus of claim 56, wherein said means for standardizing the cross-direction thickness of the base web is capable of selectively and adjustably pressing sections of the base web across the width of the base web.



60. (New) The apparatus of claim 56, wherein said means for standardizing a cross-direction thickness of the base web comprises heating means for selectively heating sections of the base web across the width of the base web.

61. (New) The apparatus of claim 56, wherein said means for standardizing a cross-direction thickness of the base web comprises cooling means for selectively cooling sections of the base web across the width of the base web.

62. (New) The apparatus of claim 56, wherein said means for standardizing a cross-direction thickness of the base web comprises wetting means for selectively wetting sections of the base web across the width of the base web

63. (New) The apparatus of claim 62, wherein said wetting means comprises one of a film transfer coater and a spray coater arranged upstream of said long-nip calender.

64. (New) The apparatus of claim 56, further comprising a machine calender for treating the base web upstream of a last of said at least one calendar.

65. (New) The apparatus of claim 64, wherein the machine calender comprises a zone-adjusted machine calender for selectively applying pressure to sections across the width of the base web.

66. (New) The apparatus of claim 65, further comprising a precalender and at least one coater for applying at least one coating layer onto the standardized web.

67. (New) The apparatus of claim 66, wherein said precalender has a nip length of less than 50 mm, a nip pressure that does not exceed 50 MPa, and a thermoroll temperature of 80 to 300°C, and said long-nip calender has a nip length of 30 to 280 mm, a nip pressure of 1 to

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12 MPa, a thermoroll temperature of 100 to 300°C, and a calender belt hardness of 80 to 100 ShA.

68. (New) The apparatus of claim 64, further comprising a precalender and at least one coater for applying at least one coating layer onto the standardized web.

69. (New) The apparatus of claim 68, wherein said precalender has a nip length of less than 50 mm, a nip pressure that does not exceed 50 MPa, and a thermoroll temperature of 80 to 300°C, and said long-nip calender has a nip length of 30 to 280 mm, a nip pressure of 1 to 12 MPa, a thermoroll temperature of 100 to 300°C, and a calender belt hardness of 80 to 100 ShA.

70. (New) The apparatus of claim 56, further comprising a precalender and at least one coater for applying at least one coating layer onto the standardized web.

71. (New) The apparatus of claim 70, wherein said precalender has a nip length of less than 50 mm, a nip pressure that does not exceed 50 MPa, and a thermoroll temperature of 80 to 300°C, and said long-nip calender has a nip length of 30 to 280 mm, a nip pressure of 1 to 12 MPa, a thermoroll temperature of 100 to 300°C, and a calender belt hardness of 80 to 100 ShA.

72. (New) The apparatus of claim 56, further comprising means for measuring a thickness across the width of said base web at a point along the length of the base web upstream of the at least one calender.

73. (New) The apparatus of claim 72, wherein said means for standardizing the cross-directional thickness includes at least one actuator, and said means for measuring is effective for measuring the thickness across the width of the base web at a point upstream of a last one of the at least one actuator.

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74. (New) The apparatus of claim 56, wherein said long-nip calender is an on-line calender in that the standardized web is received by said long-nip calender directly from the means for standardizing.

75. (New) The apparatus of claim 56, further comprising a reeler for reeling up the standardized web onto a storage reel before the web is fed to said at least one calender.

76. (New) The apparatus of claim 56, wherein said means for standardizing includes at least two of the group of devices comprising: (i) means for selectively diluting the mixture of water and pulp supplied from the headbox in sections across a width of the base web, (ii) means for selectively steaming sections across the width of the base web, (iii) means for selectively pressing sections of the base web across the width of the base web, (iv) means for selectively drying sections of the base web across the width of the base web, (v) means for selectively cooling sections of the base web across the width of the base web, (vi) means for selectively wetting sections of the base web across the width of the base web, (vii) a machine calender, and (viii) a zone-adjusted machine calender for selectively applying pressure to sections across the width of the base web.